Attachment 2

SECTION 205(j)(1)/604(b) WORK PROGRAM
FOR
FEDERAL FISCAL YEAR 2013-14

Subobjective 2.2.1: Improve Water Quality on a Watershed Basis - Use pollution prevention and restoration approaches to protect and restore the quality of rivers, lakes, and streams on a watershed basis.

Cooling Water Intake Rules & Performance Standards Evaluations

LIST OF PENNSYLVANIA EXISTING §316(b) FACILITIES
With Existing Section 316(b) Cooling Water Intake Structures

Facility	Company	Intake Waterbody (Basin)	DEP Region	NPDES Permit No.	Information Collection / Studies
SERO - Norristown					
Cromby Generating Station.	Exelon	Schuylkill River	SERO	PA0011631	Retired in 2011
Eddystone Generating Station	Exelon	Delaware River	SERO	PA0013714	Submitted study
Fairless Hills Gen Station*	Exelon	Delaware River	SERO	PA0013463	Submitted study
Limerick Generating Station	Exelon	Schuylkill River	SERO	PA0019616	BTA**
Schuylkill Gen Station	Exelon	Schuylkill River	SERO	PA0011657	Submitted study
SCRO - Harrisburg					
Brunner Island Gen Station	PPL	Susquehanna River	SCRO	PA0008281	Submitted study
Peach Bottom Atomic Power	Exelon	Susquehanna River	SCRO	PA0009733	Submitted study for IM; started entrainment study
Three Mile Island Nuclear Station	Exelon	Susquehanna River	SCRO	PA0009920	BTA**
SWRO - Pittsburgh					
Beaver Valley Power Station*	AES (w/ NOVA	Ohio River	SWRO	PA0025615	Submitted study
Armstrong Power Station	First Energy	Allegheny River	SWRO	PA0002917	Retiring in 2012
Cheswick Power Station	GenOn	Allegheny River	SWRO	PA0001627	Permit under appeal
Elrama Generating Station	GenOn	Monongahela River	SWRO	PA0001571	Retiring in 2012
Mitchell Station	First Energy	Monongahela River	SWRO	PA0002895	Permit is administratively
NERO - Wilkes-Barre					
Hunlock Creek Elec Station	UGI	N Br Susqu River	NERO	PA0008664	Submitted study
Martins Creek	PPL	Delaware River & Oughoughton Cr	NERO	PA0012823	BTA**
Portland Generating Station	GenOn	Delaware River	NERO	PA0012475	Retiring in 2012
Susquehanna Steam Elec Station	PPL	Susquehanna River	NERO	PA0047325	BTA**
NCRO - Williamsport					
Montour Station	PPL	W. Br. Susq River	NCRO	PA0008443	BTA**
Shawville Generating Station	GenOn	W. Br. Susq River	NCRO	PA0010031	Permit is under appeal
Sunbury Steam Elec Station	Sunbury Generation	Susquehanna River	NCRO	PA0008451	Started
NWRO - Meadville					
Newcastle Gen. Station	GenOn	Beaver River (Ohio River)	NWRO	PA0005061	Retiring in 2015

2013 Stream Redesignation Evaluations

Stream	County	Survey
Beaver Creek	York	Regional Office EU request
Cabin Creek	York	Regional Office Existing Use request
Kersey Run	Elk	Existing Use
Laurel Run	Elk/ Clearfield	Existing Use
Medix Run	Elk/ Clearfield	Existing Use
Mill Creek	Berks	Stream petition
Mitchell Run	Snyder	Existing Use
Mix Run	Elk/ Cameron	Existing Use
Rattlesnake Creek	Elk/ Jefferson	Regional Office EU request
Trib 17754 to Middle Creek	Snyder	Existing Use
Trib 17777 to Middle Creek	Snyder	Existing Use

Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and : healthy habitat for fish, plants, and wildlife.

lity – Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.

:r Quality on a Watershed Basis – Use pollution prevention and restoration approaches to protect and restore the quality of rivers, lakes, and streams on a

	EPA Contact (s): Denise Hakowski	State Contact (s): Tony Shaw	PRC: 202B06

Standards Program – Procurement of a new field vehicle to support monitoring program activities.

Measures	Outputs for FY 2013 (Commitments)	Status/Comment
Q-3(a): Number, and tional percent, of States and rritories and authorized ibes that within the preceding ee year period, submitted w or revised water quality teria acceptable to EPA and lect new scientific ormation from EPA or other ources not considered in the evious standards.	**WATER QUALITY STANDARDS PROGRAM:** **OUTPUT:** • An appropriate field vehicle will allow the Bureau to affectively expand field survey efforts on the Susquehanna River and larger tributaries with limited staff. Expanding field survey efforts is necessary to begin to characterize nutrient inputs via algae sampling, emerging contaminants via passive and discrete water quality sampling, fish communities via electrofishing, and other influences to the river that may be affecting the aquatic life use. **ACTIVITIES:** • Procurement of a new field vehicle meeting specifications more practical to the Bureau's expanding field survey demands (associated electrofishing support and other large river sampling activities) is necessary. This new vehicle is needed to replace a small SUV that currently is not meeting our needs or safety standards. The anticipated monitoring requires multiple crews to perform field work throughout different parts of the state independently. All of the field work requires transportation of oversized equipment (tow barge, nets, holding tanks, etc.) and toxic preservation solutions (ETOH, various acids, liquid nitrogen, formalin, etc.). These equipment and supplies are not always able to be transported effectively and safely for this work. Large equipment does not fit in the SUV and it is extremely dangerous to transport many of the preservation solutions in the cab of the SUV.	

Goal 2: Safe and Clean Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, supp recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Objective 2.2: Protect Water Quality – Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.

Subobjective 2.2.1: Improve Water Quality on a Watershed Basis – Use pollution prevention and restoration approaches to protect and restore the quality of rivers, la watershed basis.

Work Plan Component/Program: Water Quality Standards **Workyears:**	**EPA Contact (s): Denise Hakowski**	**State Contact (s): Tony Shaw**	**PRC: 202B06**

Program Description:
Pennsylvania's Water Quality Standards Program – Macroinvertebrate Sample Processing and Taxonomic Identification for Special Biological Monitoring Projects

Environmental Outcomes	Measures	Outputs for FY 2013 (Commitments)
Number of Pennsylvania's watersheds where: water quality standards are *met* ***or improved*** in at least 80% of the assessed water segments which result in improved conditions of water quality.	**WQ-3(a):** Number, and national percent, of States and Territories and authorized Tribes that within the preceding three year period, submitted new or revised water quality criteria acceptable to EPA and reflect new scientific information from EPA or other resources not considered in the previous standards.	**WATER QUALITY STANDARDS PROGRAM:** **OUTPUT:** • Macroinvertebrate taxa lists will be generated for the use in evaluating the potential of a macroinvertebrate Index of Biotic Integrity (IBI) for Pennsylvania's large rivers, other biological metric protocol revisions, water quality standards for aquatic life use evaluations, and impairment assessments. **ACTIVITIES:** • DEP collected approximately 30 large river macroinvertebrate samples in an ongoing effort to develop a large river sampling protocol. Because Chironomidae are ecologically important organisms in these large river systems, they need to be identified to Genus. Additional biological monitoring projects are anticipated and will require similar contract support to process the collected biological samples. • Since DEP does not have the expertise to do this requisite identification, this work will be contracted to experts in benthic taxonomy.

Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and : healthy habitat for fish, plants, and wildlife.

lity – Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.

r Quality on a Watershed Basis – Use pollution prevention and restoration approaches to protect and restore the quality of rivers, lakes, and streams on a

	EPA Contact (s): Denise Hakowski	State Contact (s): Tony Shaw	PRC: 202B06

ıdards Program – Monitoring in response to diseased YOY (Young of Year) and intersex smallmouth bass

Measures	Outputs for FY 2013 (Commitments)	Status/Comment
Q-3(a): Number, and :ional percent, of States and rritories and authorized ibes that within the preceding ee year period, submitted w or revised water quality teria acceptable to EPA and lect new scientific ormation from EPA or other ources not considered in the :vious standards.	**WATER QUALITY STANDARDS PROGRAM:** **OUTPUT:** • Results of the efforts will be a comprehensive assessment of the Susquehanna River and tributaries to determine and identify if any water quality conditions contribute to the smallmouth bass problem. Results will be reported in the 2014 Integrated Report. **ACTIVITIES:** • Continue studies which began in 2012 (primary focus on the Susquehanna River basin). The work includes deploying sondes at multiple locations throughout the summer to continuously measure dissolved oxygen, pH, temperature and conductivity. Conduct cross-transects at multiple locations to determine the distribution of dissolved oxygen and the mixing characteristics near the mouths of smaller tributaries. These studies will help determine if these factors contribute to stress that results in the YOY smallmouth bass disease. Additional chemical testing will be conducted to attempt to determine the contributing factors to the intersex condition. Instantaneous chemical samples will be collected and passive samplers will be deployed. The passive samplers concentrate the chemicals present in the water column to determine if pesticides, herbicides, or endocrine disrupters are contributing to intersex condition observed in adult bass	

Goal 2: Safe and Clean Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, supp recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Objective 2.2: Protect Water Quality – Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.

Subobjective 2.2.1: Improve Water Quality on a Watershed Basis – Use pollution prevention and restoration approaches to protect and restore the quality of rivers, la watershed basis.

Work Plan Component/Program: Water Quality Standards **Workyears:**	**EPA Contact (s): Denise Hakowski**	**State Contact (s): Tony Shaw**	**PRC: 202B06**

Program Description:
Pennsylvania's Water Quality Standards Program –Increase Monitoring in Areas of Gas Drilling and Related Wastewater Treatment

Environmental Outcomes	Measures	Outputs for FY 2013 (Commitments)
Number of Pennsylvania's watersheds where: water quality standards are *met* ***or improved*** in at least 80% of the assessed water segments which result in improved conditions of water quality.	**WQ-3(a):** Number, and national percent, of States and Territories and authorized Tribes that within the preceding three year period, submitted new or revised water quality criteria acceptable to EPA and reflect new scientific information from EPA or other resources not considered in the previous standards.	**WATER QUALITY STANDARDS PROGRAM:** **OUTPUT:** • The collected water quality monitor data will form a dynamic database for use by managers to identify a are uncovered. • Stream assessment samples will be analyzed and used by staff biologists for cause/effect assessments. • Radiological samples indicating a problem will be referred to the Bureau of Radiation management for fol **ACTIVITIES:** • Increase the number of stream assessments in areas of high density gas drilling activities and related w order to both establish pre-drilling conditions and monitor for changes as drilling proceeds. • Chemistry samples will be taken upstream (control) and downstream of treatment facility discharges, i activities, where drilling occurs in sensitive areas, and in response to any flow back water spills. T radiological parameters and metals found in fracking flow back water. Both water column and sediment sa • Staff will deploy continuous water quality monitors to gather primarily specific conductance for the san data will be maintained in and analyzed with AQUARIUS software. Must maintain appropriate software l

Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and : healthy habitat for fish, plants, and wildlife.

lity – Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.

:r Quality on a Watershed Basis – Use pollution prevention and restoration approaches to protect and restore the quality of rivers, lakes, and streams on a

	EPA Contact (s): Denise Hakowski	State Contact (s): Tony Shaw	PRC: 202B06

ıdards Program – PWS Use Determinations

Measures	Outputs for FY 2013 (Commitments)	Status/Comment
Q-3(a): Number, and tional percent, of States and rritories and authorized ibes that within the preceding ee year period, submitted w or revised water quality teria acceptable to EPA and lect new scientific ormation from EPA or other ources not considered in the evious standards.	**WATER QUALITY STANDARDS PROGRAM:** **OUTPUT:** • Water quality assessment summaries for Potable Water Supply use evaluations and input to PA's Water Quality Assessment Database **ACTIVITIES:** • DEP staff will assess the Potable Water Supply (PWS) use attainment status of approximately 55 water body segments by evaluating their physical/chemical quality using procedures outlined in Appendix A of Pennsylvania's "Instream Comprehensive Evaluation Surveys" (March 2009). These PWS assessment results will be captured in PA's Integrated Water Quality Monitoring and Assessment Report, as well as rulemaking recommendations, as warranted.	

Goal 2: Safe and Clean Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, supp recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Objective 2: Protect Water Quality – Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.

Subobjective 2.2.1: Improve Water Quality on a Watershed Basis - Use pollution prevention and restoration approaches to protect and restore the quality of rivers, la watershed basis.

Work Plan Component/Program: NPDES Permitting **Workyears:**	**EPA Contact (s): Francisco Cruz**	**State Contact (s): Tom Barron**	**PRC: 202B80**

Program Description: Cooling Water Intake Rules & Performance Standards Evaluations

Environmental Outcomes	Measures	Outputs for FY 2013 (Commitments)	
Control discharges to protect public health, meet technology based standards, and meet and improve water quality.	**WQ-12a:** Percent of non-tribal facilities covered by NPDES permits that are considered current. **WQ-19a:** Number, and national percent, of high priority state NPDES permits that are issued as scheduled.	**OUTPUT:** • Reviews of information submitted by existing facilities, demonstrations, and other forms of documentation implemented under Section 316(b) of the Clean Water Act to reduce aquatic life impacts from cooling water intake structures **ACTIVITIES:** • Since the Section 316(b) of the Clean Water Act Phase II rule was suspended by the EPA in May 2007 in response to the *Riverkeeper II* decision, state agencies are proceeding with implementation of 316(b) on a case-by-case basis using Best Professional Judgment (BPJ). There were 21 facilities categorized as existing Phase II facilities within Pennsylvania (see Attachment 2) that began collecting information about their intake structure after the Phase II rule was promulgated in 2004. Despite the suspension of the rule, these facilities are required to demonstrate that they have the Best Technology Available (BTA) for minimizing impingement mortality and entrainment of fishes and other aquatic life, or propose technologies to reduce impingement and entrainment. The facilities must submit an impingement mortality and entrainment characterization study and technology evaluations to determine the BTA. These facilities were requested to submit this information between July 2008 and January 2009. • This review, however, is no longer limited just to the original Phase II facilities. Section 316(b) reviews are on-going and prioritized on the basis of permit renewal date or relative impact, and other relevant factors.	

SECTION 205(j)(1)/604(b) WORK PROGRAM
FEDERAL FISCAL YEAR 2013-14

Final approved WP - 1/25/13

Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and healthy habitat for fish, plants, and wildlife.
ity – Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.
r Quality on a Watershed Basis – Use pollution prevention and restoration approaches to protect and restore the quality of rivers, lakes, and streams on a

	EPA Contact (s): Denise Hakowski	State Contact (s): Tom Barron	PRC: 202B06

idards Program – Stream Redesignation Evaluation

Measures	Outputs for FY 2013 (Commitments)	Status/Comment
3(a): Number, and nal percent, of States 'erritories and rized Tribes that n the preceding three period, submitted new 'ised water quality ia acceptable to EPA eflect new scientific nation from EPA or resources not dered in the previous ards.	**WATER QUALITY STANDARDS PROGRAM:** **OUTPUT:** • Completed water body survey evaluation reports for existing use determinations and compiled into 2 rulemakings for the PA Environmental Quality Board (EQB) and EPA Region III consideration. These rulemakings are tentatively scheduled for March and October of each year. **ACTIVITIES:** • During FY13, conduct approximately 12 stream surveys in order to determine their appropriate aquatic life or existing uses. The proposed water body surveys (see Attachment 1) originate from EQB re-designation petitions, requests from the PA Fish and Boat Commission (PFBC), or needs identified within the Department. Physical habitat and biological information will be collected following DEP's "Aquatic Life Antidegradation Protection Surveys" (January 2003) and "In-Stream Comprehensive Evaluation Survey Protocol (September 2005) Quality Assurance Plans. Survey purposes are to evaluate water use designations and identify environmental attributes - particularly outstanding ecological values, which may require special water quality protection.	